

Claims

Claim 1 (currently amended): A substantially purified polypeptide comprising ~~an~~ the amino acid sequence set forth as SEQ ID NO: 14.

Claim 2 (canceled).

Claim 3 (previously presented): A substantially purified polypeptide consisting of eight to ten consecutive amino acids of the amino acid sequence as set forth as SEQ ID NO: 14, wherein the polypeptide has a leucine or a methionine at the second position and valine or leucine in the last position, and wherein the polypeptide specifically binds HLA-A2.

Claim 4 (currently amended): A substantially purified fusion polypeptide comprising the polypeptide of claim 3 and a second ~~heterologous~~ different polypeptide moiety.

Claim 5 (canceled).

Claim 6 (previously presented): A composition comprising the polypeptide of claim 1 and a pharmaceutically acceptable carrier.

Claims 7-9 (canceled).

Claim 10 (currently amended): A substantially purified recombinant nucleic acid molecule consisting of the polynucleotide sequence set forth as nucleotides 74 to 247 of SEQ ID NO: 13, or a degenerate variant thereof, wherein the recombinant nucleic acid or the degenerate variant thereof encoding encodes the polypeptide of claim 1.

Claims 11-14 (canceled).

Claim 15 (currently amended): ~~The A~~ substantially purified recombinant nucleic acid molecule ~~of claim 10, operably linked to~~ comprising

(a) a nucleic acid molecule consisting of the polynucleotide sequence set forth as nucleotides 74 to 247 of SEQ ID NO: 13, or a degenerate variant thereof, wherein the recombinant nucleic acid or the degenerate variant thereof encodes the polypeptide of claim 1; and

(b) a promoter.

Claim 16 (previously presented): A substantially purified recombinant nucleic acid molecule encoding the polypeptide of claim 3.

Claim 17 (previously presented): A substantially purified recombinant nucleic acid molecule encoding the polypeptide of claim 4.

Claims 18-19 (canceled).

Claim 20 (currently amended): A method for eliciting an immune response in a subject, comprising administering to a subject a ~~pharmaceutical~~ composition[[,]] comprising:

(a) the polypeptide of claim 1; or

(b) a substantially purified polypeptide consisting of eight to ten consecutive amino acids of the amino acid sequence as set forth as SEQ ID NO: 14, wherein the polypeptide has a leucine or a methionine at the second position and valine or leucine in the last position, and wherein the polypeptide specifically binds HLA-A2;

in a pharmaceutically acceptable carrier, thereby eliciting the immune response in the subject.

Claims 21-23 (canceled).

Claim 24 (previously presented): The method of claim 20 wherein the subject has prostate cancer.

Claim 25 (previously presented): The method of claim 20, wherein the subject has breast cancer.

Claim 26 (currently amended): The method of claim 20, wherein the composition is administered to a female subject ~~to provide an immune defense in the event that a TARP-expressing breast cancer later develops in the female.~~

Claim 27 (currently amended): The method of claim 20 further comprising administering to the subject CD8+ cells that are sensitized with antigen presenting cells pulsed with (a) a polypeptide consisting of an epitope of eight to ten consecutive amino acids of the protein having ~~an~~ the amino acid sequence as set forth as SEQ ID NO: 14 or (b) a polypeptide consisting of an epitope of eight to ten consecutive amino acids of the protein having ~~an~~ the amino acid set forth as SEQ ID NO: 14 and a second heterologous different polypeptide moiety.

Claim 28 (previously presented): The method of claim 20, further comprising co-administering to the subject an immune adjuvant selected from the group consisting of a non-specific immune adjuvant, a subcellular microbial product and fraction, a hapten, an immunogenic protein, an immunomodulator, an interferon, a thymic hormone, and a colony stimulating factor.

Claims 29-33 (canceled).

Claim 34 (previously presented): The method of claim 27 wherein the CD8+ cells are cytotoxic T lymphocytes.

Claim 35 (previously presented): The method of claim 34 wherein the cytotoxic T lymphocytes are tumor infiltrating lymphocytes.

Claims 36-44 (canceled).

Claim 45 (currently amended): The substantially purified polypeptide of claim 4, wherein the second ~~heterologous~~ different polypeptide moiety is selected from the group consisting of a polypeptide tag for isolation, a carrier protein, and a linker.

Claim 46 (previously presented): ~~The A~~ substantially purified recombinant nucleic acid of claim 10, ~~comprising~~ consisting of the nucleic acid sequence as set forth as SEQ ID NO: 13.

Claims 47-55 (canceled).

Claim 56 (previously presented): A nucleic acid encoding the polypeptide of claim 4.

Claim 57 (previously presented): The nucleic acid of claim 56, operably linked to a promoter.

Claim 58 (currently amended): A method for eliciting an immune response in a subject, comprising

administering to a subject a composition[[],] comprising ~~a therapeutically effective amount of~~ the polypeptide of claim 4,

thereby eliciting ~~an~~ the immune response in the subject.

Claim 59 (previously presented): The substantially purified recombinant nucleic acid molecule of claim 16, operably linked to a promoter.

Claim 60 (previously presented): The substantially purified recombinant nucleic acid molecule of claim 17, operably linked to a promoter.

Claim 61 (previously presented): A vector comprising the substantially purified recombinant nucleic acid molecule of claim 15.

Claim 62 (previously presented): A vector comprising the substantially purified recombinant nucleic acid molecule of claim 59.

Claim 63 (previously presented): A vector comprising the substantially purified recombinant nucleic acid molecule of claim 60.

Claim 64 (previously presented): A composition comprising the polypeptide of claim 3 and a pharmaceutically acceptable carrier.

Claim 65 (previously presented): A composition comprising the polypeptide of claim 4 and a pharmaceutically acceptable carrier.

Claim 66 (previously presented): The method of claim 20, comprising administering the polypeptide of claim 1.

Claim 67 (previously presented): The method of claim 20, comprising administering a substantially purified polypeptide consisting of at eight to ten consecutive amino acids of the amino acid sequence as set forth as SEQ ID NO: 14, wherein the polypeptide has a leucine or a methionine at the second position and valine or leucine in the last position, and wherein the polypeptide specifically binds HLA-A2.

Claim 68 (currently amended): ~~The method of claim 67, wherein the subject is administered~~ A method for eliciting an immune response in a subject comprising administering to a subject a composition comprising a fusion polypeptide comprising the a polypeptide consisting of at eight to ten consecutive amino acids of the amino acid sequence as set forth as SEQ ID NO: 14, wherein the polypeptide has a leucine or a methionine at the second position and valine or leucine in the last position, and wherein the polypeptide specifically binds HLA-A2, and further comprising a second heterologous different polypeptide moiety.